

✓ Congratulations! You passed!

TO PASS 70% or higher

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GRADE  
100%

## Descriptive Measures of Association, Probability, and Data Distributions

LATEST SUBMISSION GRADE

100%

1. Download the file "Datasets.xlsx" Use the data in this file for the remainder of the assignment.

1 / 1 point

Datasets.xlsx

How many rows of data are included in the datasets given?

2000

✓ Correct

2. What is the covariance of Datasets A and B? Round to 2 decimal places.

1 / 1 point

81420.52

✓ Correct

3. Which dataset pair has the highest covariance?

1 / 1 point

- A & B
- B & C
- A & C
- Cannot be determined with the information given.

✓ Correct

4. Which dataset pair has the strongest relationship?

1 / 1 point

- A & B
- B & C
- A & C
- Cannot be determined with the information given.

✓ Correct

5. Given that dataset A outcomes always occur before dataset B outcomes (and no other information), can you conclude that A causes B?

1 / 1 point

- Yes, because all requirements for causation are met.
- Yes, because covariance and correlation are both positive.
- No, the variables are not correlated.
- No, there is no control for external variables.

✓ Correct

6. Create a histogram of Dataset A. Based on the shape of the distribution of outcomes, which of the following is most likely true?

1 / 1 point

- Higher values are much more likely to occur than lower values.
- Negative values are much more likely to occur than positive values.
- All values in the range have a relatively equivalent chance of occurring, with a slightly lower probability on the high end.
- No information can be used from this dataset.

✓ Correct

7. Create a histogram of Dataset B. Based on the shape of the distribution of outcomes, select the range below that appears to have the highest probability of occurrence.

1 / 1 point

- 729 to -350
- 250 to 200
- 400 to 800
- 1100 to 1500

✓ Correct

## 8. Consider 4 sets of data:

1 / 1 point

- set W: set of all real numbers over the range 1 to 100.
- set X: set of all integers over the range 1 to 100.
- set Y: set of all real numbers over the range 1 to 3.
- set Z: set of all whole numbers over the range 1 to 10,000.

Which set has the LEAST numbers?

- set W  
 set X  
 set Y  
 set Z  
 Cannot be determined from the information given.



Correct

See Lesson 5 - Statistical Distributions

## 9. Assume that datasets Y and Z have a Covariance of -500. Which of the following do you know to be true? Select all that apply.

1 / 1 point

- Datasets Y and Z have a strong relationship.  
 Datasets Y and Z have a negative relationship.



Correct

You must select all of the correct answers, and none of the incorrect answers.

- The results may be affected by the units of measurement.



Correct

You must select all of the correct answers, and none of the incorrect answers.

- Datasets Y and Z have a causal relationship.

## 10. Select all the examples of Discrete data below:

1 / 1 point

- Bees in a beehive



Correct

You must select all of the correct answers, and none of the incorrect answers.

- Honey in a beehive

- Fish in the sea



Correct

You must select all of the correct answers, and none of the incorrect answers.

- Voltage level of a battery

- Your dog's weight

- Time you wake up in the morning

- Languages spoken



Correct

You must select all of the correct answers, and none of the incorrect answers.

- Voters for a particular candidate in an election



Correct

You must select all of the correct answers, and none of the incorrect answers.

- Cooking oil used in recipe

- Animals on a farm



Correct

You must select all of the correct answers, and none of the incorrect answers.